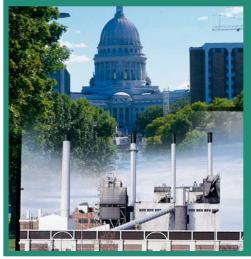


ENVIRONMENTAL
COOPERATIVE AGREEMENT

ANNUAL REPORT 2004



Blount Station

**Madison, Wisconsin** 



#### INTRODUCTION

MGE signed an Environmental Cooperative Agreement (ECA) with the Wisconsin Department of Natural Resources (WDNR) on September 26, 2002. As a part of that ECA, MGE committed to providing the WDNR a Baseline Report by March 24, 2003, and annual performance evaluations thereafter. This is our second annual performance report.

During 2004, we met with our Community Environmental Advisory Group (CEAG) two times. We reviewed the 2003 Annual ECA Report and certification of Blount's Environmental Management System, seeking and receiving their input. The format and content of this report reflects their suggestion for more quantitative information. We thank them for their dedication and interest in providing valuable feedback for us.

**Section One** of this report includes a summary of some of our more notable achievements. During the past year, we have actively worked to implement the commitments made in the ECA which move us beyond regulatory compliance. We have made excellent progress.

During 2004, we accomplished the following:

- ISO 14001 Certification
- Significantly increased our use of waste material as a fuel source, replacing about three weeks of coal use
- Purchased over 15,000 gallons of bio-diesel fuel
- Met with the WDNR to discuss implementation of the Boiler 8 Combustion Improvement Study
- Submitted 2002 and 2003 data to the WDNR Voluntary Emission Reduction Registry of significant voluntary emissions reductions
- Laid groundwork to begin monitoring effectiveness of the storm water filtration system
- Continued our noise concerns procedure
- Offered thermostat recycling to customers and noncustomers, recycling 48 thermostats
- Sent about 17,000 tons of fly ash to Iowa for beneficial ash use rather than to landfill
- Replaced mercoid pressure switches containing 6 pounds of mercury with mercuryfree pressure switches
- Evaluated additional emission control options for our diesel generators
- Fine-tuned pulser performance on Boiler No. 8
- Submitted our first electronic WPDES Discharge Monitoring Report to the WDNR

We continue to advance evaluation of strategies and technologies for further emission reductions at Blount.

**Section 2** of this report includes an overview of our environmental management system (EMS) implementation and subsequent certification to the ISO 14001 standard. It addresses how we met our ECA requirement for an ISO-based or ISO-equivalent EMS and the steps we took to go beyond ECA requirements to achieve ISO certification.

**Section 3** of this report includes an environmental assessment by an independent auditing firm. This assessment measured our compliance with the ECA commitments and our conformance with federal, state, and local environmental requirements.

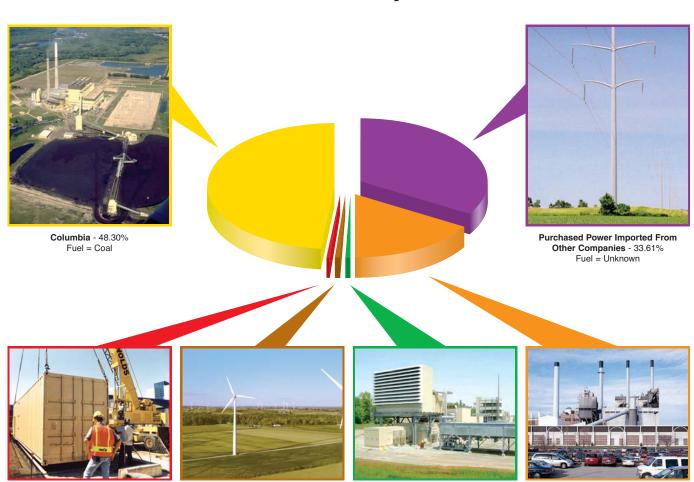
The ECA and resulting improvements of MGE's environmental documentation have allowed the auditors to examine MGE's records in greater detail. Third-party audits are not typically made public. We are seeking to create a level of audit and transparency that goes beyond standard practice and helps us improve.

The audit firm found MGE to be in full compliance with our ECA commitments. See the attached table of corrective actions that outlines actions MGE has taken or will take to correct any of the exceptions found during the audit.

# **2004 MGE Power Sources**

MGE's Blount Station continues to make an important contribution to the reliability of MGE's electric system. Blount's location in downtown Madison makes it especially significant for reliability in the central city area. During 2004, Blount provided 16.39% of the electricity for MGE customers.

# Where MGE electricity comes from



Marinette - 0.64%

Fuel = Natural Gas

Blount - 16.39%

Fuel = Coal/Natural Gas/PDF/Oil

Kewaunee Wind - 0.66%

Fuel = Renewable

**Combustion Turbines and** 

Customer Site Generators - 0.40%

Fuel = Natural Gas/Oil

In 2004, MGE continued its support of renewable fuels research and use.

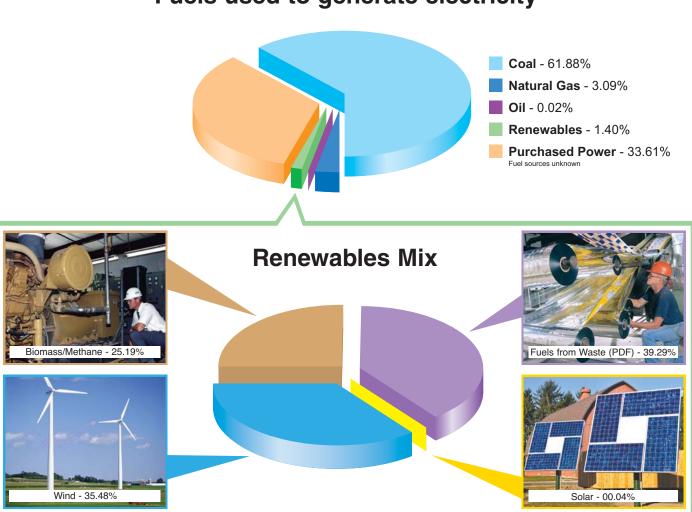
The joint solar PV installation with the City of Madison in the municipal building parking lot in downtown Madison was completed last spring. Monitoring equipment began producing reliable data in late summer. The system is expected to produce about 775 kWh per month, or enough electricity to very adequately power a home or small business in Madison.

MGE signed a 20 year power purchase agreement to buy 40 MW of electricity from a new wind facility expected to be built near Waupun in 2005. This purchase will increase our wind power portfolio by nearly 500%.

We have plans to install a Stirling engine at a Middleton landfill to produce electricity from the methane generated by the landfill.

We are partnering with Virent Energy Systems on a demonstration project to generate electricity with an internal combustion engine that uses hydrogen from sugar along with natural gas.

# Fuels used to generate electricity



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#### Section 2 ISO 14001 – Environmental Management System

#### Section 3 Compliance Audit Results and Corrective Action

- Introduction
- Audit Report
- Corrective Action

#### **Appendix**

- ISO 14001 Certificate of Registration
- Van Breusegen & Associates, Inc., Statement of Qualifications
- Glossary of Acronyms

#### **SECTION 1**

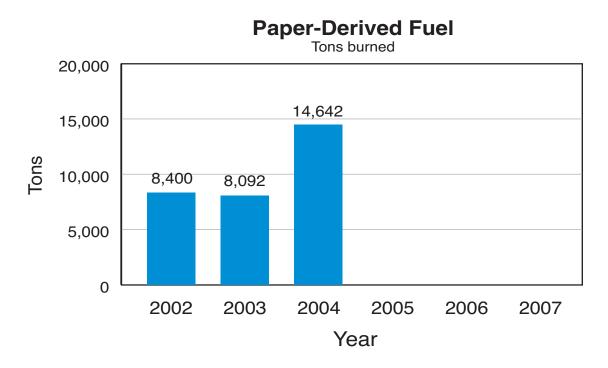
# ENVIRONMENTAL COOPERATIVE AGREEMENT (ECA) 2004 PERFORMANCE DATA

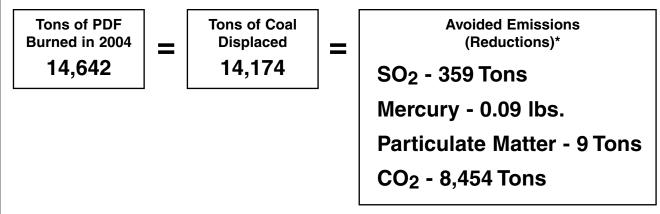
# **Alternate Fuel Usage**

During the last quarter of 2003 and into 2004, MGE worked cooperatively with our subcontractor, Madison General Fuels, touring several manufacturing facilities in the Fox Valley to identify and quantify additional sources of alternative fuel.

In 2004, MGE arranged for additional storage facilities near our Blount plant and installation of baling equipment at Madison General Fuels' facility in Oshkosh. The additional storage helps maintain a consistent flow of material. The baling equipment compacts material that ordinarily would be too lightweight and expensive to ship to Madison.

These improvements enabled us to burn a record 14,642 tons of PDF, replacing about 3 weeks of coal use.





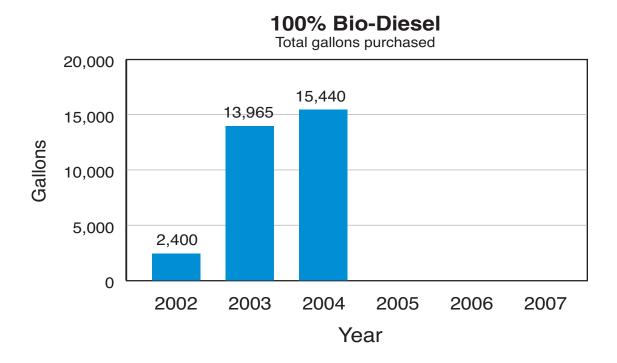
#### \*Note:

Emission reductions are estimated as follows:

Emissions associated with the displaced coal (14,174 tons) minus the emissions associated with the PDF (14,642 tons) equals reductions.

## **Bio-Diesel Fuel**

After the ECA signing in October 2002, MGE began using bio-diesel fuel in those fleet vehicles that refuel at our downtown Central Service Station.



Based on Environmental Protection Agency (EPA) data, replacing petroleum-based diesel fuel reduces carbon monoxide emissions by 10%, particulate matter by 15%, sulfates by 20%, and hydrocarbons by 20%. (See EPA fact sheet in the Appendix for more details.)

In 2004, the price difference between conventional diesel fuel and bio-diesel was as much as \$1.26 per gallon. MGE spent approximately \$20,000 more to purchase bio-diesel to displace regular diesel fuel. MGE was willing to pay this premium for the reduced emissions.

Bio-diesel is a fuel produced from a variety of renewable resources, including waste vegetable oils, cooking oil, soybean oil, and animal fats. Bio-diesel can replace petroleum diesel and produces significantly less air pollution. It is renewable and biodegradable.

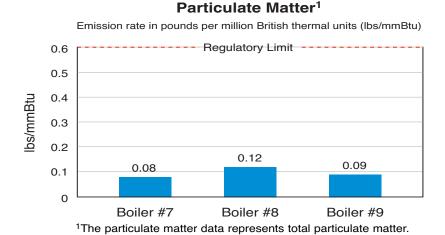
# **Regulated Emissions**

MGE consistently achieves air emissions below regulatory requirements, and in several cases, well below. The following charts provide emissions data for 2004.

The air permit for Blount Station limits particulate matter emissions to 0.6 pounds per million British thermal units (Btu).\* The chart shows all three boilers are well below the regulatory standard ranging from approximately five to ten times lower than the limit.

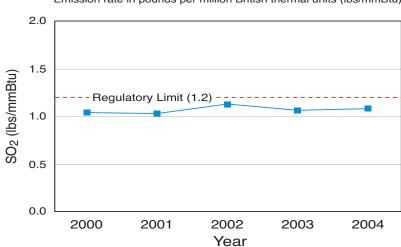
The Wisconsin Acid Rain Law sets an annual average SO<sub>2</sub> emission rate of 1.2 pounds per million Btu for all MGE boilers. The emission rate is based on Continuous Emissions Monitoring System (CEMS) data collected at Blount Station and Columbia Generating Station. The CEMS consists of equipment and computers that track how much sulfur dioxide and nitrogen oxides the plants are releasing.

The EPA's Acid Rain Program for Blount Station limits NO<sub>X</sub> emissions from each boiler. The EPA set different limits for different types of boilers. Boiler No. 7 has an annual NO<sub>X</sub> limit of 0.68 pounds per million Btu. Boiler Nos. 8 and 9 have a NO<sub>X</sub> limit of 0.50 pounds per million Btu. The NO<sub>X</sub> emission rate is based on Continuous Emissions Monitoring System (CEMS) data collected at Blount Station.

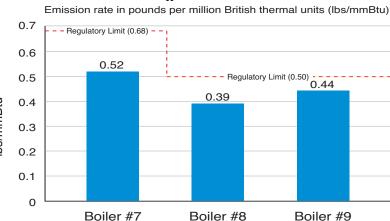


#### MGE System SO<sub>2</sub> Emission Rate

Emission rate in pounds per million British thermal units (lbs/mmBtu)



#### NO<sub>X</sub> Emission Rate



<sup>\*</sup>A Btu is a measure of the heating value of the fuel being burned. Burning 91 pounds of coal generates one million Btu of heat.

#### No. 8 Boiler Combustion Improvement Study

MGE completed the study and submitted the final version to the WDNR on November 6, 2003. MGE met with the WDNR to discuss implementation of the study. MGE plans to implement the project during the fall outage in 2005 pending WDNR approval as a pollution reduction project. The project is expected to increase the use of alternative fuels and potentially reduce nitrogen oxides  $(NO_X)$ , particulate matter, opacity levels, carbon monoxide (CO), and volatile organic compounds (VOCs).

#### **WDNR Voluntary Emission Reduction Registry**

On October 12, 2004, MGE submitted emission reductions to the WDNR's registry for 2002 and 2003. Projects we voluntarily implemented that reduced emissions included the Columbia Combustion Initiative, use of paper-derived fuel (PDF), use of compressed natural gas (CNG) vehicles and bio-diesel in MGE's fleet, and the use of ultra-low sulfur diesel for MGE's diesel generators. Through the use of PDF, Blount produced the following emission reductions:

- PM reduced by 7% in 2002 and 3% in 2003
- SO<sub>2</sub> reduced by 5% in 2002 and 2003
- NO<sub>x</sub> reduced by 7% in 2002 and 8% in 2003
- CO<sub>2</sub> reduced by 1% in 2002 and 2003

We plan to submit emission reductions dating back to 1994 for the criteria pollutants and 1991 for carbon dioxide. We will also submit future emission reductions resulting from ECA-related projects.

#### **Stormwater Demonstration Project**

MGE installed a storm filter system in October 2003 to treat runoff from an MGE parking lot. The treatment device exceeds requirements under existing regulations for stormwater discharge. In 2004, MGE worked with the U.S. Geological Survey to evaluate and purchase sampling equipment that will monitor the effectiveness of the system to control pollutants such as sediment, nutrients, and heavy metals. Current plans are to install the equipment and begin monitoring storm events in 2005.

#### **Noise Procedure**

Blount staff is currently following the noise concerns procedure identified in the ECA Baseline Report. All calls regarding noise are routed to a Blount contact person for resolution. Blount had no noise complaints in 2004.

#### **Mercury Thermostat Recycling for Building Contractors**

The ECA requires MGE to continue its voluntary mercury thermostat recycling program and allow select noncustomers (e.g., building contractors) as well as customers to drop off mercury-containing thermostats and other devices for recycling.

Forty-eight (48) thermostats were recycled in 2004.

#### **Beneficial Ash Use Report**

As of June 1, 2004, MGE is sending fly ash from Blount to an underground mine in Iowa where it is used as structural fill. We anticipate this will reduce approximately 20,000 tons of waste from landfills annually.

We evaluated the potential for reburning ash from the UW Charter Street Facility. Our current air permit does not allow us to burn ash. We are waiting for the WDNR to respond to our request to include ash in our fuel mix at Blount. We asked to have the ash classified as coal rather than an alternative fuel because it has similar properties as coal. If ash is considered an alternative fuel, it will limit the amount of PDF we can burn. We want to maximize the amount of PDF because it can reduce emissions.

#### Mercury Inventory and Removal Plan

Blount has completed an in-depth inventory of mercury-containing items and has set removal priorities. Included in priority setting is integrating mercury-containing device replacement with control upgrades and other planned maintenance and capital control schedules. Within these upgrade projects, we will replace mercoid pressure switches with mercury-free pressure switches plant-wide. Blount removed 6 pounds of mercury in 2004. We estimate that Blount will remove 6 to 10 pounds in 2005. Blount is on track to meet our internal removal goals. We will bring other areas of the company into the removal plan in 2005 and help them track and prioritize their mercury-containing items. We will focus on removing high-risk items and controlling lower-risk items.

#### **Diesel Generator Emission Reductions**

MGE is working with Cummins and Universal Silencer to design a particulate-matter control device that will be installed on a 600-kW diesel generator. This project will help determine if we can reduce fine particulates even further than our current practice of using ultra-low sulfur fuel. A temperature d atalogger was installed on the exhaust stack in December 2004 to evaluate the exhaust temperatures typically achieved. This information is necessary to select the most appropriate emissions control device.

MGE plans to conduct the testing in May 2005 once the WDNR authorizes a research and testing exemption and advance approval under NR 436.03.

#### **Pulsers Installation**

After installing the new pollution-control pulsers in December 2003, MGE has been working with the manufacturer to fine tune the performance of the equipment.

#### **Electronic Reporting**

The WDNR recently offered an electronic Discharge Monitoring Report (DMR) submittal program for some of its WPDES permit holders. MGE submitted a Trading Partner Agreement to the WDNR on October 12, 2004, to become enrolled in the new electronic DMR submittal program. MGE submitted its first electronic WPDES DMR to the WDNR using the new electronic DMR submittal

system on December 13, 2004. Submitting reports electronically will reduce the use of paper and make the process more efficient.

#### **Thermal Discharge Study**

MGE hired Power Engineers Collaborative in 2004 to conduct a study on the feasibility of recovering heat from noncontact cooling water for local use and to reduce thermal discharge to Lake Monona. Finalization of the study is postponed pending the release of the WDNR's proposed thermal discharge rules.

# SECTION 2 ISO 14001 – ENVIRONMENTAL MANAGEMENT SYSTEM

#### **Environmental Management System Update**

Under the ECA, MGE committed to implementing an environmental management system (EMS) at Blount Station based on ISO (the International Organization for Standardization) or an equivalent standard. We achieved our commitment in May 2004, more than three months earlier than the September deadline. After completing a desk-top audit and an on-site preliminary audit (on-site readiness review), a third-party auditor concluded that our written program met all the EMS standards outlined by ISO.

#### **Going Beyond ECA Commitments**

Having met the ECA requirements, we set our standards far higher and set out to achieve ISO 14001 certification. ISO 14001 has become an international reference for enabling organizations to meet their environmental challenges. Achieving ISO certification requires an extensive audit by an independent third-party auditor (who has gone through rigorous training and demonstrated competency to be qualified to audit).

Through the audit, we proved that our system met the ISO standards on paper, was fully adopted, understood by our employees, and working successfully. Blount Station became certified to the ISO 14001 standard on September 23, 2004, the first power plant in Wisconsin to do so (see Appendix for copy of certification).

To achieve certification, we completed each of the elements listed in the table on page 3 (see ISO 14001 Element Completion Status). Briefly, we:

**Developed and Met Goals -** An ISO-Certified EMS program has to set and achieve measurable goals and continually improve. Blount's environmental goals are set with sound science and financial evaluation. In the short time that we have had our EMS, Blount has achieved:

- An integrated emergency management process incorporating elements from several existing plans and coordinated among three departments beyond Blount.
- Creating the infrastructure needed to burn more paper-derived fuel; then burning a record 14,640 tons which replaced about three weeks of coal.
- A successful system to beneficially reuse our fly ash, saving 20,000 tons of waste from landfills annually.

**Trained Employees** - Employees at Blount were trained to understand the ISO EMS standard and how to incorporate it into all aspects of day-to-day activities. Employees outside of Blount who play a role in environmental issues at Blount were trained to understand their unique roles.

- 233 employees, 96 at Blount and 137 employees outside of Blount, were trained.
- 189 hours of training conducted over several months with multiple sessions for most participants.

- 35 training guides were created for 20 unique groups to address each area's roles and responsibilities.
- Ongoing training will continue in all areas.

**Developed Database Tools** - To more efficiently implement the EMS, we have developed several tools to facilitate new or modified processes at Blount:

- An Objectives and Targets database to track EMS goals
- A database to respond to and follow-up on employee suggestions, compliance issues, and audit findings.
- A calendar to track regulatory and EMS requirements, responsibilities, and due dates. It will also integrate document management.
- An emergency response database.
- A project management database to document our environmental review process and facilitate more efficient communications between project managers and environmental staff.

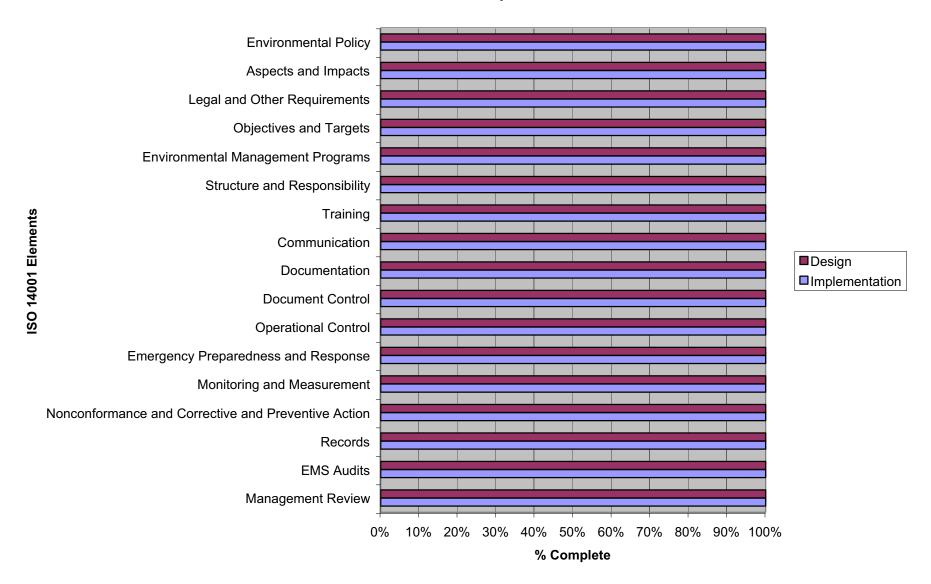
#### **Next Steps/New Goals**

ISO 14001 requires continual improvement. New goals for 2005 include:

- Beneficial reuse of bottom ash.
- Reduction of coal rejects.
- Implementing boiler improvements based on an efficiency study.

In addition, Blount will be audited by internal auditors quarterly and external auditors every six months.

#### **ISO 14001 Element Completion Status**



## **SECTION 3**

# COMPLIANCE AUDIT RESULTS AND CORRECTIVE ACTION

#### **SECTION 3**

# COMPLIANCE AUDIT RESULTS AND CORRECTIVE ACTION

#### Introduction

As part of the Environmental Cooperative Agreement (ECA) process, an independent auditing firm, Van Breusegen & Associates, Inc. (VBA), evaluated Blount Station (Blount) to determine its performance with federal, state, and local environmental requirements as well as the ECA. The audit was performed by three (3) environmental professionals between December 6 and 10, 2004. The audit involved a physical survey of operations, an extensive examination of relevant records, and interviews of key MGE personnel. VBA has extensive experience in performing environmental audits on industrial operations throughout North America, including performing the 2002 and 2003 Blount audits. VBA's statement of qualifications (SOQ) is included in the Appendix.

VBA's audit results are included in the first part of this section. Although third-party audits are not typically made public, MGE is seeking to create a level of audit and transparency to go beyond standard practice and help us improve.

In comparison to previous audits, the ECA and resulting improvements of MGE's environmental documentation have allowed the auditors to examine MGE's records in greater detail. After assessing all applicable regulations, VBA identified some conformance exceptions at Blount. Most of MGE's conformance exceptions involved record keeping and reporting.

The audit report shows MGE is in full compliance with the ECA in all respects. Furthermore, our efforts in training and communicating to our employees the importance of managing our environmental impacts is reflected in the fact that VBA found no emission limit exceedances. None of the audit findings involve an impact on public health, safety, or the environment.

The VBA audit identified areas for continued improvement. We recognize that the appropriate response to these discoveries requires both swift action to immediately correct any problems and long-term solutions that prevent future nonconformance. The immediate corrective action taken on each finding is explained in the Corrective Action table located in the second half of this section.

# **Environmental Audit Report**

Prepared by Van Breusegen & Associates, Inc. St. Albans, Missouri

### Environmental Audit Report Madison Gas and Electric Blount Street Station Madison, Wisconsin

December 2004

Prepared for Madison Gas & Electric Madison, Wisconsin

Prepared by Van Breusegen & Associates, Inc. St. Albans, Missouri

VBA Project No. 1872

#### Introduction

This report summarizes the results of an environmental audit of the Madison Gas & Electric (MGE), Blount Street Station ("Facility") located in Madison (Dane County), Wisconsin. The objective of this audit was to evaluate the conformance status of representative Facility operations with respect to Federal, State of Wisconsin, Dane County and City of Madison statutes, regulations, ordinances and the Wisconsin Department of Natural Resources (WDNR)/MGE Environmental Cooperative Agreement (ECA). The objective of the attached report is to communicate the audit results. This report is not meant to imply legal certification of compliance or non-compliance.

The scope of this audit was generally directed toward Facility operations related to air quality (asbestos, CFCs, construction/operating permits, NSPS, NESHAPs, PSD), emergency planning (EPCRA/CERCLA reporting, SPCC/OPA/FRP, Hazardous Waste Contingency Plans, RMP), regulated materials (PCBs, pesticides, radiation, TSCA/non-PCBs), USTs/ASTs, waste management (hazardous, medical, solid, universal, used oil), and water quality (groundwater, NPDES/SPDES, SDWA, storm water, UIC, wastewater, wells). The period of review was from January 2004 to December 2004. The audit site visit was conducted on December 6-10, 2004. Additional information provided by the Facility as of December 23, 2004 is also reflected in the audit report as appropriate.

The audit was based on a physical survey of the facility and examination of a sample of environmental, administrative and/or operating records, and interviews with key personnel.

This report includes all non-conformance findings identified during the audit, regardless of significance of the issue. Findings are categorized as "exceptions", which are confirmed instances of non-conformance, or "observations", which are instances where non-conformance is suspected but unconfirmed, or where there is an elevated risk of non-conformance if action is not taken. All findings in this report are exceptions, unless specifically identified as an observation.

#### **Executive Summary**

Facility operations reviewed were noted to be in substantive conformance with Federal, State of Wisconsin, Dane County and City of Madison statutes or regulations, except as provided in the findings tables of this report. The findings are summarized as follows:

Program Area	Exceptions	Observations
Air Quality	15	8
Emergency Planning	2	0
Regulated Materials	0	1
USTs/ASTs	0	0
Waste Management	3	1
Water Quality	1	1
Total	21	11

Additionally, the facility was in conformance with conditions of the Environmental Cooperative Agreement (ECA).

Based upon VBA's experience, MGE personnel have a thorough working knowledge of applicable regulatory requirements and consider environmental compliance to be a priority. MGE personnel demonstrated a thorough understanding of the applicable environmental regulatory programs.

The following tables present the full text of the environmental non-conformance findings that were identified during the audit. Included are the regulatory citations for those findings driven by regulatory requirements. The non-conformance issues are principally associated with recordkeeping and reporting issues.

Topic	Conformance Exceptions	Recommendation
Air – Acid Rain	The facility was unable to certify compliance with the Acid Rain Program in its Phase II Annual Compliance Certification for 2003, submitted pursuant to Condition 4.a.1 of the Acid Rain portion of the Operating Permit. Specifically, the certification omitted boiler #7 due to CEMS data concerns, which has been brought to the attention of EPA.	The facility should resubmit the Phase II Annual Compliance Certification for 2003, check the "No" box, and attach an explanation for the reasons why the facility cannot certify compliance.
	Note: This was discussed with EPA during 2 <sup>nd</sup> quarter 2004. The facility was verbally informed by EPA that it need not resubmit the certification until after a petition to correct unit #7 CEMS data has been accepted.	
Air – NESHAP	The facility did not include the volume of asbestos disposed in "cubic yards" as specified by Asbestos Waste Shipment Record instructions and NR 447.13(2)4.(a) for two of 20 asbestos manifests produced during calendar year 2004 (shipment records Nos. 743548 on 6/2/04 and 743549 on 6/7/04).	The facility should send a letter to the contractor directing that they conduct refresher training for personnel responsible for shipment record completion to ensure that volume shipped is indicated in cubic yards on all asbestos waste manifests.
	Note: Facility personnel stated that the referenced shipments were less than 1 cubic yard in volume.	
Air – Operating Permit	<ul> <li>The 2005 Sulfur Dioxide Compliance Plan, submitted on September 28, 2004 to the WDNR pursuant to Section I.AA.1.b.(1) &amp; c.(1), was deficient as follows:</li> <li>The Plan was not submitted to the Wisconsin Public Service Commission; and</li> </ul>	The facility should re-submit the 2005 Sulfur Dioxide Compliance Plan that includes an explanation of how maintenance is expected to affect the methods of meeting electricity demands, and ensure the Plan is submitted to the Wisconsin Public Service Commission, as well as the WDNR.

Topic	Conformance Exceptions	Recommendation
	The Plan did not include an explanation of how maintenance is expected to affect the methods of meeting electricity demands.	
Air – Operating Permit	Records of daily inspections of the Coal Thawing and Railcar/Truck Unloading operation, required by Section I.N.1.b.(1) & c.(1), were deficient as follows:	The facility should ensure the Coal Thawing and Railcar/Truck Unloading forms are completed properly on a daily basis.
	• Records for February 5, 6, 10 and 11, 2004 inspections do not include initials of the inspector;	
	• Records for February 1, 3, 9 and 15, 2004 inspections do not include the Number of Cars Unloaded;	
	• Records for February 1 and 14, 2004 inspections state that water and/or chemicals were added, but do not include the amount added (Note: The facility indicated that water and chemicals are not applied in the winter months due to freezing; therefore, it is believed that these forms were incorrectly marked); and	
	• Records of inspections for May 8, 9 and 23, 2004 were not found in the file.	
Air – Operating Permit	A record of the daily inspection of the Outdoor Coal Storage and Coal Pile Maintenance operation, required by Section I.P.1.b.(2) & c.(2), was not found for May 23, 2004.	The facility should ensure the Outdoor Coal Storage and Coal Pile Maintenance forms are completed properly on a daily basis.
Air – Operating Permit	The facility is not completing the Daily Tire Wash Prestart Checklist every day, as required by the Wheelwash Station O&M Procedures implemented pursuant to Section	The facility should ensure the Daily Tire Wash Prestart Checklist is completed on a daily basis when the tire wash facility is utilized.

Topic	Conformance Exceptions	Recommendation
	I.Y.1.b.(13) & c.(7). Specifically, the facility did not complete the checklist on May 28, 2004.	
Air – Operating Permit	The facility failed to record pressure drop readings for the #8/9 ash transfer systems once every 8 hours, as demonstrated by missing readings on the following days:  • September 12, 2004; and  • December 7, 2004.	The facility should ensure the pressure drop readings are recorded for the #8/9 ash transfer system once every 8 hours.
Air – Operating Permit	The test plan and notification for the annual Relative Accuracy Test Audits (RATAs), submitted in April 2004 included a narrative description of the sampling point location, but did not include a sketch showing the sampling point location relative to the nearest upstream and downstream flow disturbances, as required by NR 439.07(2).	MGE should ensure that all future test plans contain the required information.
Air – Operating Permit	The Relative Accuracy Test Audit (RATA) reports for boilers 8 and 9, submitted in January 2004, and the RATA reports for Boilers #7, 8 and 9, submitted in June 2004, did not include a log of the operating conditions of the air pollution control devices, as required by NR 439.07(9)(b).	The facility submitted logs of the ESP operating parameters with the 2004 Annual Compliance Certification Report, dated January 28, 2005. No further action required.
Air – Operating Permit	ESP parameters were not recorded on the following days at least once every 8 hours during operation of Boilers #7, 8 and 9, as required by Sections I.C.1.c.(4) and I.E.1.c.(4) of the Permit:	The facility should ensure that ESP parameters are recorded at least once every 8 hours of operation.

Topic	Conformance Exceptions	Recommendation
	• January 19, 20 and 30; and April 14, 2004 for Boiler #7;	
	• February 5, and August 13 and 14, 2004 for Boiler #8; and	
	• February 5; and August 13-14, 2004 for Boiler #9.	
	Note: Readings of the #9 ESP outlet were not taken on March 30-31, and April 1, 2004 due to equipment being out of service.	
Air – Operating Permit	The particulate matter stack test conducted on Boiler 9 during 2004 does not appear to meet the sampling location requirements of Method 1, required by Sections I.C.1.b.(1) and I.E.1.b.(1) of the Operating Permit, as specified below:	The facility should seek legal advice regarding the acceptability of this stack testing site.
	• The sampling location does not meet the primary location of 8 duct diameters downstream from a disturbance, and 2 duct diameters upstream from a disturbance (8 and 2), 40 CFR 60, Appendix A, Method 1, Section 11.1.1; and	
	• The sampling location does not meet the alternate location of 2 duct diameters downstream from a disturbance and 0.5 duct diameters upstream from a disturbance (2 and 0.5), 40 CFR 60, Appendix A, Method 1, Section 11.1.1.	
	Specifically, the test ports for Boiler #9 are located 1.6 duct diameters downstream from a disturbance, less than the required minimum distance of 2 duct diameters.	

Topic	Conformance Exceptions	Recommendation
	Note: The sampling location does not meet the acceptable criteria for mean and standard deviation of the pitch and yaw angles of gas flow, based on a 3-dimensional flow study conducted in 1992 and documented in the 3-Dimensional Probe Summary Report, 40 CFR 60, Appendix A, Method 1, Sections 11.1.2, 11.5.1, and 12.3.4.	
Air – Operating Permit	The annual report that documents monitoring results for 2003, due January 30, 2004, was not submitted to the WDNR as required by Section I.AB.1.a.(1) of the Operating Permit.  Note: Monitoring results were submitted on a quarterly basis.	The facility should submit the 2003 report of monitoring results.
Air – Operating Permit	The pressure change in the PDF baghouse was recorded as 7.5 inches of water on November 3, 2004, above the limit of 7.0 inches of water required to be maintained by Section I.M.1.b.(2) of the Operating Permit.  The facility re-read the baghouse pressure gauge the day after the initial reading on November 3, 2004, and found the pressure drop to be 6.8 inches of water. No additional readings above 7.0 were recorded between November 3 and the week of the audit.  Notification of the pressure drop exceedance was not made by the next business day, along with the cause and corrective actions taken, as required by NR 439.03(4)(c).	The facility should implement the following corrective actions:  • Ensure the pressure drop is maintained within the established range of 2-7 inches of water; and  • Report the event, cause and corrective action taken to the WDNR.

Topic	Conformance Exceptions	Recommendation
Air – QA/QC Plan	The facility failed the quarterly flow-to-load test conducted for the 3 <sup>rd</sup> quarter, and did not conduct a single-pass RATA until approximately 30 days after the end of the 30-day grace period. Therefore, according to 40 CFR 75 Appendix B, the CEMS flow meter for Boiler #7 has been out-of-control during the month of November 2004. Valid CEMS data was not collected during this time period when the boiler was in operation, as required by 40 CFR 75.10(d).	The facility conducted the single-pass RATA at the end of November, which concluded that the flow meter for Boiler #7 was taking valid data measurements.  The facility should ensure the flow-to-load test is conducted on a quarterly basis in accordance with the procedures of 40 CFR 75Appendix B, Section 2.2.5.
Air – QA/QC Plan	The facility conducted a check of the CEMS uninterrupted power supply only once in 2004. The QA/QC Plan requires a semi-annual check of the UPS system.	The facility should ensure the UPS checks are conducted and documented on a semi-annual basis.
Emergency Planning – EPCRA/ CERCLA	<ul> <li>The following deficiencies and/or discrepancies were identified regarding Toxic Release Reporting (TRI Form Rs) required by 40 CFR 372.30:</li> <li>Coal concentration data utilized in calendar year 2003 supporting calculations was not consistent across reporting media (i.e., air calculations vs. ash calculations);</li> <li>Values reviewed (supporting documentation) for release calculations were not consistent with values indicated on submitted Form Rs;</li> <li>The disposal method code indicated for land disposal of Lead (M99) was not consistent with disposal method codes utilized for land disposal of Mercury and Barium (M64) at the same disposal facility;</li> </ul>	<ul> <li>The facility should conduct the following corrective actions:</li> <li>Ensure coal concentrations utilized in release calculations were consistent across media;</li> <li>Verify supporting documentation utilized to complete Form Rs to ensure actual releases are accurately reflected on submitted Form R reports and submit amended Form R's as appropriate;</li> <li>Consult with MG&amp;E legal to determine if an amended Form R should be submitted for Lead to indicated the land disposal code of M64 to be consistent with Mercury and Barium Form R's;</li> <li>Consult with MG&amp;E legal to determine if amended Form R reports should be submitted for Lead and Mercury to report releases at least as accurate as data supports; and</li> </ul>

Topic	Conformance Exceptions	Recommendation
	• In Section 5 and Section 8 of the Form Rs submitted, the facility did not report releases of all PBTs (i.e., mercury and lead) at least as accurately as supported by facility data and/or calculations (releases were rounded to whole numbers); and	Include calendar year 2003 data with the supporting documentation for trimethylbenzene.
	• Supporting documentation included with the facility's 2003 threshold calculation for processing and/or otherwise use of trimethylbenzene utilized calendar year 2002 data and not calendar year 2003 data (Note: facility personnel stated that cy 2003 data was actually utilized and the threshold was not exceeded).	
Emergency Planning –	The following deficiencies and/or discrepancies were noted regarding development and/or implementation of the Blount	The facility should conduct the following corrective measures:
SPCC/OP A/FRP	Generating Station SPCC Plan signed April 17, 2003 and updated December 6, 2004:	Develop a contingency plan consistent with the requirements of 40 CFR 109; and
	Plan development deficiencies:	Amend the SPCC Plan to address the deficiencies noted.
	• The SPCC Plan does not include an oil spill contingency plan following the provisions pursuant to 40 CFR 109 and a written commitment of manpower and resources for response in lieu of secondary containment as required by 40 CFR 112.7(d);	
	• The SPCC Plan does not include one 55-gallon container receiving oil / water blow-down from a compressor located in the wastewater treatment building as required by 40 CFR 112.7;	

Topic	Conformance Exceptions	Recommendation
	• The SPCC Plan does not address the spill potential the predicted rate of flow or quantity discharged from the facility as the result of <b>each</b> type of major equipment failure as required by 40 CFR 112.7(b) (the Plan addresses four (4) of the facility's 60+ oil storage/use locations);	
	• The SPCC Plan does not address all storage containers (i.e., drums) when discussing container materials compatible with oil stored as required by 40 CFR 112.8(c)(1);	
	• The SPCC Plan does not adequately address integrity testing of all bulk storage containers (small tanks, drums, etc.) or explain why integrity testing will not be done and what measures will be used in lieu of testing as required by 40 CFR 112.8(c)(6); and	
	• The floor of the secondary containment dike for the 500,000-gallon tank is not "sufficiently impervious" as required by 40 CFR 112.1 and 112.7(c). The Plan states that the floor is predicted to allow for permeability and the permeability was estimated and not monitored.  Plan implementation deficiencies:	
	<ul> <li>Quarterly inspections for first quarter 2004 were not signed or dated; and</li> </ul>	
	The SPCC Plan states that there are "numerous" hydrocarbon monitors located on sumps and/or sewers however, only two such monitors were observed as	

Topic	Conformance Exceptions	Recommendation
	installed at the time of the site visit.	
Waste – Hazardous	<ul> <li>The facility operated as a small quantity generator of hazardous waste during all 12 months of review. The following deficiencies/ discrepancies were noted regarding the facility's hazardous waste management program as required for SQGs by NR 610.05, NR 610.08 (1)(w) and (2)(a):</li> <li>The facility has not characterized an unknown liquid contained in a five gallon container in the flammable cabinet adjacent to the #6 Turbine Loading Dock, an abandoned computer (Cathode Ray Tube) located near the #2 Turbine, and six 55-gallon drums of waste stored adjacent to the 500,000-gallon AST, as required by NR 610.05;</li> <li>Weekly inspections of the satellite accumulation area located in the Maintenance Shop were not consistently documented on the Hazardous Waste Inspection Log (i.e., missing documentation for weeks of 11/11/04, 10/07/04, 05/13/04, and 2/1/04 thru 2/21/04); and</li> <li>A cursory review showed weekly inspections of the satellite accumulation areas located in the Maintenance Shop, and Instrument Shop did not include the "time" of the inspection as required by NR 610.08(o).</li> </ul>	<ul> <li>Complete a waste determination of the unknown liquid in the five gallon container and the waste in the 55-gallon drums;</li> <li>Provide additional training to personnel responsible for weekly inspections; and</li> <li>Ensure that the current weekly inspection form is utilized and that the "time" of the inspection is consistently completed.</li> </ul>
Waste – Hazardous/ Universal	The following deficiencies/discrepancies were noted regarding on-site waste management of spent lead acid, Lithium and Ni-Cd batteries, spent mercury thermostats and spent mercury-containing spent lamps:	The facility should conduct the following corrective actions:     Provide refresher awareness training to Instrument Shop personnel responsible for proper management

Topic	Conformance Exceptions	Recommendation
	<ul> <li>Five spent fluorescent lamps leaning against the wall of the Instrument Shop (locked room with limited access) were not managed as universal waste in accordance with 40 CFR 273; and</li> <li>Three lead acid batteries in a cardboard box located in the Store Room were not managed to prevent breakage in accordance with NR 625.12 (1) (b).</li> </ul>	of spent lamps in this area, including re-labeling accumulation start dates as appropriate; and  • Manage waste lead-acid batteries in accordance with regulatory requirements.
Waste – Used Oil	Eight 55-gallon containers holding used oil near the #6 Turbine loading dock were not labeled with the words "used oil" as required by NR 590.13(4).	The facility should ensure that containers are consistently labeled with the words "used oil."
Water – POTW	Self-Identified and Resolved on October 26, 2004  The facility's MMSD permit No. NTO-85C (Part 2, Section 2) requires that all reports shall be signed and sworn by a responsible corporate officer. The facility submitted the Semi-Annual Groundwater Seepage Testing Reports on March 9, 2004 and August 24, 2004 that did not include a certification statement.	The facility resubmitted the reports on October 26, 2004 with appropriate certifications. No further action required.

#### **Table of Findings - Observations**

Topic	Conformance Observations	Recommendation
Air – Operating Permit	Documentation of the inspections conducted every 18 months on the mechanical cyclone collectors and the electrostatic precipitators, required by Section I.C.1.(c)(5) & I.E.1.(c)(5), were not readily available for review during the audit.	The facility should ensure that proper documentation is created upon completion of the inspections and is readily available for review.
Air – Operating Permit	The January, February and April 2004 rolling 12-month operating hour records, required by Section I.J.3.(c)(2), I.K.3.(c)(2) and I.L.1.(c)(1), do not match the operating logs provided by the General Office Facility.	The facility should investigate the discrepancies and document the correct operating hours.
Air – Operating Permit	The facility did not conduct the 12-month rolling summation of operating hours by the 15 <sup>th</sup> business day of each month, required by Sections I.A.4.(b)(1), I.J.3.(b)(1) and I.K.3.(b)(1), as described below:	The facility should ensure the operating hour records for these sources are created by the 15 <sup>th</sup> business day of the following month for the previous month, and that the date of calculation is recorded.
	• February 2004 operating hours for B21, B22 and B23 were not calculated until March 30 2004;	
	• June 2004 operating hours for P31 and P33 were not calculated until July 29, 2004; and	
	• August 2004 operating hours for P31 and P33 were not calculated until October 5, 2004.	
	Note: The facility stated that the calculations are conducted prior to the 15 <sup>th</sup> day in a spreadsheet, but are not necessarily printed prior to the 15 <sup>th</sup> . The date on the printed record is the date of printing, not of calculation. Based on this system, calculations for the above-listed months could not	

#### **Table of Findings - Observations**

Topic	Conformance Observations	Recommendation
	be confirmed as being conducted in a timely manner.	
Air – Operating Permit	The sampling location for the particulate matter stack test conducted on Boiler 7 during 2004 meets the simplified criteria for location, but does not meet the resultant angle and standard deviation criteria, established by 40 CFR Part 60, Method 1. The method does not require conduct of the flow study if the simplified criteria are met. However, the facility now has data that contradicts the acceptable sampling location, based on the 1994 3-D Flow Study.	The facility should seek legal advice regarding any necessary actions that need to be taken to ensure the sampling location on Boiler #7 is appropriate.
Air – Operating Permit	The facility did not complete the Daily Tire Wash Prestart Checklist, required by the Wheelwash Station O&M Procedures implemented pursuant to Section I.Y.1.b.(13) & c.(7), on the following days:	If the facility does not have vehicles entering or leaving on weekends and holidays, it should amend its procedures to reflect this practice.
	• February 7, 8, 14, 15, 21, 22, 28 and 29, 2004; and	
	• May 1, 2, 8, 9, 15, 16, 22, 23 and 28-31, 2004.	
	The above-listed missing days appear to be weekends and holidays. The procedures do not state that the checklist will only be completed on work weekdays, therefore, it is unclear whether or not the checklist should be completed on weekends and holidays.	

#### **Table of Findings - Observations**

Topic	Conformance Observations	Recommendation
Air – Operating Permit	The facility installed a second baghouse in the PDF handling area without first applying for a minor modification to the Operating Permit, as required by NR 407.12 or, alternatively, did not provide notification to the Department 21 days prior to modification as provided by operating permit flexibility pursuant to NR 407.025. It is unclear whether or not this source, which vents inside the PDF building, requires a permit modification.	The facility should consult with MG&E legal to determine if it should submit an application for a minor revision to the operating permit for the baghouse or notification as required by NR 407.025.
Air – QA/QC Manual	The mid and high range values of the calibration filters used to conduct the quarterly COMS audits for 1 <sup>st</sup> and 2 <sup>nd</sup> quarters of 2004 did not meet the range values established in the QA/QC Manual, when corrected for stack conditions. According to the facility, the manual was modified in March 2004 to include updated calibration ranges. The manual was revised again in September 2004. However, a copy of the March 2004 manual was not available for review. Therefore, it could not be confirmed that the filters used prior to September 2004 were within the newly-established ranges.	The facility modified the QA/QC Manual on September 1, 2004, changing the low, mid and high range values required for the audits. The 3 <sup>rd</sup> quarter audit was conducted with calibration filters that met the newly-established ranges. No further action required.
Air – QA/QC Plan	<ul> <li>Documentation was not available to demonstrate that weekly analyzer checks and CEMS equipment checks were conducted for the following weeks, as required by the QA/QC Plan:</li> <li>Week of April 21, 2004 for #9 CO<sub>2</sub> analyzer, and week of May 4, 2004 for #7, 8 and 9 CO<sub>2</sub> analyzers;</li> </ul>	The facility should ensure the analyzer checks and CEMS equipment checks are conducted and documented on a weekly basis, and amend the QA/QC Manual to require documentation of situations that cause the facility to miss a weekly check.

Topic	Conformance Observations	Recommendation
	• Week of March 31, 2004 for #9 NO <sub>x</sub> analyzer, and week of May 4, 2004 for #7, 8 and 9 NO <sub>x</sub> analyzers;	
	• Week of May 4, 2004 for #7, 8 and 9 SO <sub>2</sub> analyzers; and	
	• Weeks of April 14 and 21, 2004 for the CEMs equipment.	
	Note: Section 11 of the QA/QC Manual states that occasionally, the technician may not be able to conduct the weekly check due to situations that arise. The manual does not define such situations, nor does it require documentation of such situations. As a result, it cannot be determined if a legitimate situation arose in the above instances, or if the weekly check was just missed. In addition, the work order documentation provided for the above listed dates was insufficient to demonstrate that the weekly analyzer and equipment checks were conducted in accordance with the QA/QC Plan.	
Regulated Materials – Pesticides	Based upon limited interviews, facility personnel handling containers that previously contained an EPA-registered pesticide were not familiar with all disposal requirements in conformance with label instructions as required by FIFRA 12(a)(2).	The facility should ensure personnel handling empty containers that previously held a pesticide are familiar with label requirements for container disposal.
Waste – Infectious	The facility generates an infectious waste (sharps), maintains the waste in rigid labeled containers and transports the waste to a hospital for disposal. Facility personnel were not aware that records of the amount of infectious waste transported off-site for treatment must be maintained as required by NR 526.14(1)(a).	The facility should maintain records that consist of any of the following: copies of infectious waste manifests, invoices or records received from the infectious waste treatment facility, logs or other written documentation of the amount of infectious waste sent off-site for treatment. These records should be kept for at least 3 years.

Topic	Conformance Observations	Recommendation
	Note: Facility personnel stated that no infectious waste shipments were made in calendar year 2004.	
Water – WPDES	The Wastewater facility has four oily stains on the exterior of the building; two on the back side of the building generated from historic operation of air operated sump pumps and two on the side of the building originating from the basement from historic operation of air operated sludge water sumps. The four stains represent a potential source of storm water contamination and are not described in the WDPES permit application.	The facility should remove the staining from the building.

## **Limiting Conditions**

The following limiting conditions were encountered during the audit, and should be noted:

- A comprehensive visual inspection of all storage rooms, closets, etc., was not conducted due to time constraints; and
- It is important to recognize that due to practical constraints, this report presents general conclusions and does not necessarily identify all potential issues.

# Table of Findings with Corrective Action and Status

Topic	Conformance Exceptions	Corrective Action	Status
Air – Acid Rain	The facility was unable to certify compliance with the Acid Rain Program in its Phase II Annual Compliance Certification for 2003, submitted pursuant to Condition 4.a.1 of the Acid Rain portion of the Operating Permit. Specifically, the certification omitted boiler #7 due to CEMS data concerns, which has been brought to the attention of EPA.  Note: This was discussed with EPA during 2 <sup>nd</sup> quarter 2004. The facility was verbally informed by EPA that it need not resubmit the certification until after a petition to correct unit #7 CEMS data has been accepted.	MGE has resubmitted the Phase II Annual Compliance Certification for 2003 to the EPA with the "No" box checked and an explanation of why MGE cannot certify compliance for Boiler 7. MGE omitted Boiler 7 from the certification report because we believe the continuous emissions monitoring data compiled for the period of June 23 to September 8, 2003, understated emissions. A petition requesting approval to apply a correction factor to the data was submitted to the EPA on May 24, 2004. MGE plans to submit a certification report with the "Yes" box checked after the petition has been accepted by the EPA and all monitoring data has been corrected and submitted.	Completed January 26, 2005.

Topic	Conformance Exceptions	Corrective Action	Status
Air – NESHAP	The facility did not include the volume of asbestos disposed in "cubic yards" as specified by Asbestos Waste Shipment Record instructions and NR 447.13(2)4.(a) for two of 20 asbestos manifests produced during calendar year 2004 (shipment records Nos. 743548 on 6/2/04 and 743549 on 6/7/04).  Note: Facility personnel stated that the referenced shipments were less than 1 cubic yard in volume.	MGE reviewed the Asbestos Waste Shipment Records and determined that the volume of asbestos disposed was less than 1 cubic yard for the shipments on June 2, 2004, and June 7, 2004. MGE sent a letter to the asbestos contractor on December 17, 2004, requesting that staff be reminded all asbestos waste must include a quantity stated in cubic yards.	Completed December 17, 2004.
Air – Operating Permit	<ul> <li>The 2005 Sulfur Dioxide Compliance Plan, submitted on September 28, 2004 to the WDNR pursuant to Section I.AA.1.b.(1) &amp; c.(1), was deficient as follows:</li> <li>The Plan was not submitted to the Wisconsin Public Service Commission; and</li> <li>The Plan did not include an explanation of how maintenance is expected to affect the methods of meeting electricity demands.</li> </ul>	MGE has resubmitted to the WDNR the 2005 Sulfur Dioxide Compliance Plan with a more explicit explanation of how maintenance is expected to affect the methods of meeting electricity demands. A copy of that plan has also been submitted to the Wisconsin Public Service Commission.	Completed January 26, 2005.

Topic	Conformance Exceptions	Corrective Action	Status
Air – Operating Permit	<ul> <li>Records of daily inspections of the Coal Thawing and Railcar/Truck Unloading operation, required by Section I.N.1.b.(1) &amp; c.(1), were deficient as follows:</li> <li>Records for February 5, 6, 10 and 11, 2004 inspections do not include initials of the inspector;</li> <li>Records for February 1, 3, 9 and 15, 2004 inspections do not include the Number of Cars Unloaded;</li> <li>Records for February 1 and 14, 2004 inspections state that water and/or chemicals were added, but do not include the amount added (Note: The facility indicated that water and chemicals are not applied in the winter months due to freezing; therefore, it is believed that these forms were incorrectly marked); and</li> <li>Records of inspections for May 8, 9 and 23, 2004 were not found in the file.</li> </ul>	The individuals responsible for completing these inspections were reminded to fill out the forms completely and accurately. All forms will be sent to the Supervisor of Fuel and Environmental Compliance for quality assurance.	Completed December 22, 2004.
Air – Operating Permit	A record of the daily inspection of the Outdoor Coal Storage and Coal Pile Maintenance operation, required by Section I.P.1.b.(2) & c.(2), was not found for May 23, 2004.	The individuals responsible for completing these inspections were reminded to fill out the forms completely and accurately. All forms will be sent to the Supervisor of Fuel and Environmental Compliance for quality assurance.	Completed December 22, 2004.

Topic	Conformance Exceptions	<b>Corrective Action</b>	Status
Air – Operating Permit	The facility is not completing the Daily Tire Wash Prestart Checklist every day, as required by the Wheelwash Station O&M Procedures implemented pursuant to Section I.Y.1.b.(13) & c.(7). Specifically, the facility did not complete the checklist on May 28, 2004.	The individuals responsible for completing these inspections were reminded to fill out the forms completely and accurately. All forms will be sent to the Supervisor of Fuel and Environmental Compliance for quality assurance.	Completed December 22, 2004.
Air – Operating Permit	The facility failed to record pressure drop readings for the #8/9 ash transfer systems once every 8 hours, as demonstrated by missing readings on the following days:  • September 12, 2004; and  • December 7, 2004.	The supervisors responsible for having these readings taken were reminded to have these records properly filed. MGE is in the process of reviewing its electronic files to determine if these records already exist.	Completed December 22, 2004.
Air – Operating Permit	The test plan and notification for the annual Relative Accuracy Test Audits (RATAs), submitted in April 2004 included a narrative description of the sampling point location, but did not include a sketch showing the sampling point location relative to the nearest upstream and downstream flow disturbances, as required by NR 439.07(2).	In lieu of a sketch, MGE included a narrative description of the sampling point location. MGE is evaluating the applicable requirements and will amend its RATA plan as appropriate.	To be completed prior to RATA testing scheduled in May 2005.
Air – Operating Permit	The Relative Accuracy Test Audit (RATA) reports for boilers 8 and 9, submitted in January 2004, and the RATA reports for Boilers #7, 8 and 9, submitted in June 2004, did not include a log of the operating conditions of the air pollution control devices, as required by NR 439.07(9)(b).	MGE has submitted a copy of the logs to the WDNR.  Long-term solution includes using MGE's calendar to remind the submitter to include these items.	Completed January 28, 2005.

Topic	Conformance Exceptions	Corrective Action	Status
Air – Operating Permit	ESP parameters were not recorded on the following days at least once every 8 hours during operation of Boilers #7, 8 and 9, as required by Sections I.C.1.c.(4) and I.E.1.c.(4) of the Permit:  • January 19, 20 and 30; and April 14, 2004 for Boiler #7;  • February 5, and August 13 and 14, 2004 for Boiler #8; and  • February 5; and August 13-14, 2004 for Boiler #9.  Note: Readings of the #9 ESP outlet were not taken on March 30-31, and April 1, 2004 due to equipment being out of service.	The supervisors responsible for having these readings taken were reminded to have these records properly filed.	Completed December 22, 2004.

Topic	Conformance Exceptions	Corrective Action	Status
Air – Operating Permit	<ul> <li>The particulate matter stack test conducted on Boiler 9 during 2004 does not appear to meet the sampling location requirements of Method 1, required by Sections I.C.1.b.(1) and I.E.1.b.(1) of the Operating Permit, as specified below:</li> <li>The sampling location does not meet the primary location of 8 duct diameters downstream from a disturbance, and 2 duct diameters upstream from a disturbance (8 and 2), 40 CFR 60, Appendix A, Method 1, Section 11.1.1; and</li> <li>The sampling location does not meet the alternate location of 2 duct diameters downstream from a disturbance (2 and 0.5), 40 CFR 60, Appendix A, Method 1, Section 11.1.1.</li> <li>Specifically, the test ports for Boiler #9 are located 1.6 duct diameters downstream from a disturbance, less than the required minimum distance of 2 duct diameters.</li> <li>Note: The sampling location does not meet the acceptable criteria for mean and standard deviation of the pitch and yaw angles of gas flow, based on a 3-dimensional flow study conducted in 1992 and documented in the 3-Dimensional Probe Summary Report, 40 CFR 60, Appendix A, Method 1, Sections 11.1.2, 11.5.1, and 12.3.4.</li> </ul>	MGE is checking to see if we can relocate the test ports to meet the minimum distance requirements.  MGE is confident that particulate emissions for Boiler 9 are below the permitted limit of 0.60 lbs/mmBtu. Based on the results of the 1992 flow study, the particulate emission tests may have been up to 10% high.	To be completed prior to May 2, 2005.

Topic	Conformance Exceptions	<b>Corrective Action</b>	Status
Air – Operating Permit	The annual report that documents monitoring results for 2003, due January 30, 2004, was not submitted to the WDNR as required by Section I.AB.1.a.(1) of the Operating Permit.  Note: Monitoring results were submitted on a quarterly basis.	MGE is required to submit an annual report that documents monitoring results for 2003 due January 30, 2004. Throughout 2003, MGE submitted monitoring results on a more frequent basis (i.e., quarterly). That data was not resubmitted a second time in the form of an annual report until January 27, 2005.	Completed January 27, 2005.
Air – Operating Permit	The pressure change in the PDF baghouse was recorded as 7.5 inches of water on November 3, 2004, above the limit of 7.0 inches of water required to be maintained by Section I.M.1.b.(2) of the Operating Permit.  The facility re-read the baghouse pressure gauge the day after the initial reading on November 3, 2004, and found the pressure drop to be 6.8 inches of water. No additional readings above 7.0 were recorded between November 3 and the week of the audit.  Notification of the pressure drop exceedance was not made by the next business day, along with the cause and corrective actions taken, as required by NR 439.03(4)(c).	MGE sent Madison General Fuels (MGF), MGE's contractor for the PDF (paper-derived fuel) operation, a revised copy of the baghouse monitoring procedure. The revised version specifies that the Supervisor of Fuel and Environmental Compliance must be contacted immediately if the pressure drop is outside of the acceptable range.	Completed January 12, 2005.

Topic	Conformance Exceptions	Corrective Action	Status
Air – QA/QC Plan	The facility failed the quarterly flow-to-load test conducted for the 3 <sup>rd</sup> quarter, and did not conduct a single-pass RATA until approximately 30 days after the end of the 30-day grace period. Therefore, according to 40 CFR 75 Appendix B, the CEMS flow meter for Boiler #7 has been out-of-control during the month of November 2004. Valid CEMS data was not collected during this time period when the boiler was in operation, as required by 40 CFR 75.10(d).	Conduct a single-flow RATA for Boiler 7.	Completed November 2004.
Air – QA/QC Plan	The facility conducted a check of the CEMS uninterrupted power supply only once in 2004. The QA/QC Plan requires a semi-annual check of the UPS system.	The work order system for the Maintenance Department has been revised to require a semiannual check of the UPS system in the CEMS shelter.	Completed January 28, 2005.
Emergency Planning – EPCRA/	The following deficiencies and/or discrepancies were identified regarding Toxic Release Reporting (TRI Form Rs) required by 40 CFR 372.30:	Resubmit all applicable TRI Form Rs for 2003 based on findings identified.	To be completed by March 30, 2005.
CERCLA	Coal concentration data utilized in calendar year 2003 supporting calculations was not consistent across reporting media (i.e., air calculations vs. ash calculations);	Long-term solution will include the development of a process to review submissions for quality	
	Values reviewed (supporting documentation) for release calculations were not consistent with values indicated on submitted Form Rs;	assurance.	
	The disposal method code indicated for land disposal of Lead (M99) was not consistent with disposal method codes utilized for land disposal of Mercury and Barium (M64) at the same disposal facility;		
	• In Section 5 and Section 8 of the Form Rs submitted, the		

Topic	Conformance Exceptions	Corrective Action	Status
	facility did not report releases of all PBTs (i.e., mercury and lead) at least as accurately as supported by facility data and/or calculations (releases were rounded to whole numbers); and		
	• Supporting documentation included with the facility's 2003 threshold calculation for processing and/or otherwise use of trimethylbenzene utilized calendar year 2002 data and not calendar year 2003 data (Note: facility personnel stated that cy 2003 data was actually utilized and the threshold was not exceeded).		
Emergency Planning – SPCC/OPA/ FRP	The following deficiencies and/or discrepancies were noted regarding development and/or implementation of the Blount Generating Station SPCC Plan signed April 17, 2003 and updated December 6, 2004:	Develop a contingency plan consistent with the requirements of 40 CFR 109.	The contingency plan was completed January 3, 2005.
	Plan development deficiencies:	The SPCC Plan will be amended to address the other findings.	Other findings to be completed by May 2, 2005.
	• The SPCC Plan does not include an oil spill contingency plan following the provisions pursuant to 40 CFR 109 and a written commitment of manpower and resources for response in lieu of secondary containment as required by 40 CFR 112.7(d);		
	The SPCC Plan does not include one 55-gallon container receiving oil / water blow-down from a compressor located in the wastewater treatment building as required by 40 CFR 112.7;		
	The SPCC Plan does not address the spill potential the predicted rate of flow or quantity discharged from the facility as the result of each type of major equipment failure		

Topic	Conformance Exceptions	Corrective Action	Status
	as required by 40 CFR 112.7(b) (the Plan addresses four of the facility's 60+ oil storage/use locations);	(4)	
	• The SPCC Plan does not address all storage containers (in drums) when discussing container materials compatible oil stored as required by 40 CFR 112.8(c)(1);		
	• The SPCC Plan does not adequately address integrity test of all bulk storage containers (small tanks, drums, etc.) of explain why integrity testing will not be done and what measures will be used in lieu of testing as required by 40 CFR 112.8(c)(6); and	r	
	• The floor of the secondary containment dike for the 500,000-gallon tank is not "sufficiently impervious" as required by 40 CFR 112.1 and 112.7(c). The Plan states the floor is predicted to allow for permeability and the permeability was estimated and not monitored.  Plan implementation deficiencies:	that	
	<ul> <li>Quarterly inspections for first quarter 2004 were not sign or dated; and</li> </ul>	ned	
	The SPCC Plan states that there are "numerous" hydrocarbon monitors located on sumps and/or sewers however, only two such monitors were observed as insta at the time of the site visit.	lled	

Topic	Conformance Exceptions	<b>Corrective Action</b>	Status
Waste – Hazardous	The facility operated as a small quantity generator of hazardous waste during all 12 months of review. The following deficiencies/ discrepancies were noted regarding the facility's hazardous waste management program as required for SQGs by NR 610.05, NR 610.08 (1)(w) and (2)(a):	Complete a waste determination of the unknown liquid in the five-gallon container and the waste in the 55-gallon drums.	To be completed by March 30, 2005.
	The facility has not characterized an unknown liquid contained in a five gallon container in the flammable cabinet adjacent to the #6 Turbine Loading Dock, an abandoned	Transferred to computer to storage area for recycling.	Completed by December 14, 2004.
	computer (Cathode Ray Tube) located near the #2 Turbine, and six 55-gallon drums of waste stored adjacent to the 500,000-gallon AST, as required by NR 610.05;	Retrained staff on the necessity of completing these each week.	Completed March 10, 2005.
	Weekly inspections of the satellite accumulation area located in the Maintenance Shop were not consistently documented on the Hazardous Waste Inspection Log (i.e.,	Devise a "Plan B," if necessary, in the event Maintenance Staff cannot perform the inspection.	To be completed by March 30, 2005.
	missing documentation for weeks of 11/11/04, 10/07/04, 05/13/04, and 2/1/04 thru 2/21/04); and	Ensured Maintenance staff is using correct form.	Completed March 10, 2005.
	• A cursory review showed weekly inspections of the satellite accumulation areas located in the Maintenance Shop, and Instrument Shop did not include the "time" of the inspection as required by NR 610.08(o).	Long-term solution includes redesigning waste training in 2005 to stress items found during audit.	

Topic	Conformance Exceptions	Corrective Action	Status
Waste – Hazardous/ Universal	The following deficiencies/discrepancies were noted regarding on-site waste management of spent lead acid, Lithium and Ni-Cd batteries, spent mercury thermostats and spent mercury-containing spent lamps:  • Five spent fluorescent lamps leaning against the wall of the Instrument Shop (locked room with limited access) were not	Retrained Instrument Shop staff on proper lamp disposal (the majority of the plant personnel were following proper procedure).	Completed March 10, 2005. Follow-up planned.
	managed as universal waste in accordance with 40 CFR 273; and	Retrained Storeroom on proper management of lead-acid	Completed by December 30, 2004.
	• Three lead acid batteries in a cardboard box located in the Store Room were not managed to prevent breakage in accordance with NR 625.12 (1) (b).	batteries.	
Waste – Used Oil	Eight 55-gallon containers holding used oil near the #6 Turbine loading dock were not labeled with the words "used oil" as required by NR 590.13(4).	Retrained applicable Blount staff on proper labeling. Long-term solution includes creating a poster to help remind employees of the labeling requirement.	Completed by December 30, 2004.
Water – POTW	Self-Identified and Resolved on October 26, 2004	No corrective action necessary.	No corrective action necessary.
	The facility's MMSD permit No. NTO-85C (Part 2, Section 2) requires that all reports shall be signed and sworn by a responsible corporate officer. The facility submitted the Semi-Annual Groundwater Seepage Testing Reports on March 9, 2004 and August 24, 2004 that did not include a certification statement.		

Topic	Conformance Observations	<b>Corrective Action</b>	Status
Air – Operating Permit	Documentation of the inspections conducted every 18 months on the mechanical cyclone collectors and the electrostatic precipitators, required by Section I.C.1.(c)(5) & I.E.1.(c)(5), were not readily available for review during the audit.	Although inspection records are available in electronic database, the person responsible for these records will make sure hard copies are filed in Corporate Records.	Completed on January 27, 2005.
Air – Operating Permit	The January, February and April 2004 rolling 12-month operating hour records, required by Section I.J.3.(c)(2), I.K.3.(c)(2) and I.L.1.(c)(1), do not match the operating logs provided by the General Office Facility.	The records were updated to reflect the operating logs.	Completed on January 27, 2005.

Topic	Conformance Observations	<b>Corrective Action</b>	Status
Air – Operating Permit	<ul> <li>The facility did not conduct the 12-month rolling summation of operating hours by the 15<sup>th</sup> business day of each month, required by Sections I.A.4.(b)(1), I.J.3.(b)(1) and I.K.3.(b)(1), as described below:</li> <li>February 2004 operating hours for B21, B22 and B23 were not calculated until March 30 2004;</li> </ul>	The individual responsible for completing these calculations was reminded to print all calculations with a date stamp within 15 business days of the end of each month.	Completed January 26, 2005.
	• June 2004 operating hours for P31 and P33 were not calculated until July 29, 2004; and		
	• August 2004 operating hours for P31 and P33 were not calculated until October 5, 2004.		
	Note: The facility stated that the calculations are conducted prior to the 15 <sup>th</sup> day in a spreadsheet, but are not necessarily printed prior to the 15 <sup>th</sup> . The date on the printed record is the date of printing, not of calculation. Based on this system, calculations for the above-listed months could not be confirmed as being conducted in a timely manner.		
Air – Operating Permit	The sampling location for the particulate matter stack test conducted on Boiler 7 during 2004 meets the simplified criteria for location, but does not meet the resultant angle and standard deviation criteria, established by 40 CFR Part 60, Method 1. The method does not require conduct of the flow study if the simplified criteria are met. However, the facility now has data that contradicts the acceptable sampling location, based on the 1994 3-D Flow Study.	MGE will seek legal advice regarding any necessary actions that need to be taken to ensure the sampling location on Boiler No. 7 is appropriate.	Actions, if necessary, to be completed by May 2, 2005.

Topic	Conformance Observations	<b>Corrective Action</b>	Status
Air – Operating Permit	The facility did not complete the Daily Tire Wash Prestart Checklist, required by the Wheelwash Station O&M Procedures implemented pursuant to Section I.Y.1.b.(13) & c.(7), on the following days:  • February 7, 8, 14, 15, 21, 22, 28 and 29, 2004; and  • May 1, 2, 8, 9, 15, 16, 22, 23 and 28-31, 2004.	MGE will amend the procedure to require completion of the Daily Tire Wash Prestart Checklist.	To be completed by March 15, 2005.
	The above-listed missing days appear to be weekends and holidays. The procedures do not state that the checklist will only be completed on work weekdays, therefore, it is unclear whether or not the checklist should be completed on weekends and holidays.		
Air – Operating Permit	The facility installed a second baghouse in the PDF handling area without first applying for a minor modification to the Operating Permit, as required by NR 407.12 or, alternatively, did not provide notification to the Department 21 days prior to modification as provided by operating permit flexibility pursuant to NR 407.025. It is unclear whether or not this source, which vents inside the PDF building, requires a permit modification.	MGE will seek legal advice to determine if we should submit an application for minor revisions to the operating permit for the baghouse or notification as required by NR 407.025.	To be completed by March 15, 2005.

Topic	Conformance Observations	Corrective Action	Status
Air – QA/QC Manual	The mid and high range values of the calibration filters used to conduct the quarterly COMS audits for 1 <sup>st</sup> and 2 <sup>nd</sup> quarters of 2004 did not meet the range values established in the QA/QC Manual, when corrected for stack conditions. According to the facility, the manual was modified in March 2004 to include updated calibration ranges. The manual was revised again in September 2004. However, a copy of the March 2004 manual was not available for review. Therefore, it could not be confirmed that the filters used prior to September 2004 were within the newly-established ranges.	No further action required.	No further action required.

Topic	<b>Conformance Observations</b>	<b>Corrective Action</b>	Status
Air – QA/QC Plan	<ul> <li>Documentation was not available to demonstrate that weekly analyzer checks and CEMS equipment checks were conducted for the following weeks, as required by the QA/QC Plan:</li> <li>Week of April 21, 2004 for #9 CO<sub>2</sub> analyzer, and week of May 4, 2004 for #7, 8 and 9 CO<sub>2</sub> analyzers;</li> <li>Week of March 31, 2004 for #9 NO<sub>x</sub> analyzer, and week of May 4, 2004 for #7, 8 and 9 NO<sub>x</sub> analyzers;</li> <li>Week of May 4, 2004 for #7, 8 and 9 SO<sub>2</sub> analyzers; and</li> <li>Weeks of April 14 and 21, 2004 for the CEMs equipment.</li> <li>Note: Section 11 of the QA/QC Manual states that occasionally, the technician may not be able to conduct the weekly check due to situations that arise. The manual does not define such situations, nor does it require documentation of such situations. As a result, it cannot be determined if a legitimate situation arose in the above instances, or if the weekly check was just missed. In addition, the work order documentation provided for the above listed dates was insufficient to demonstrate that the weekly analyzer and equipment checks were conducted in accordance with the QA/QC Plan.</li> </ul>	MGE will amend the QA/QC Manual to require documentation of situations that cause the facility to miss weekly checks.	To be completed by March 30, 2005.

Topic	Conformance Observations	Corrective Action	Status
Regulated Materials – Pesticides	Based upon limited interviews, facility personnel handling containers that previously contained an EPA-registered pesticide were not familiar with all disposal requirements in conformance with label instructions as required by FIFRA 12(a)(2).	MGE took several steps to ensure personnel are handling containers according to regulations:	Completed March 10, 2005.
		1. Put up signs reminding Storeroom personnel of requirements.	
		2. Created individual labels for pesticide containers spelling out requirements.	
		3. Spoke with janitors about new process.	
Waste – Infectious	The facility generates an infectious waste (sharps), maintains the waste in rigid labeled containers and transports the waste to a hospital for disposal. Facility personnel were not aware that records of the amount of infectious waste transported off-site for	Person responsible for sharps disposal has been informed of procedure for future implementation.	Completed by December 30, 2004.
	treatment must be maintained as required by NR 526.14(1)(a).  Note: Facility personnel stated that no infectious waste	A log was developed to help comply with NR 526.14(1)(a).	Completed March 11, 2005.
	shipments were made in calendar year 2004.		
Water – WPDES	The Wastewater facility has four oily stains on the exterior of the building; two on the back side of the building generated from historic operation of air operated sump pumps and two on the side of the building originating from the basement from historic operation of air operated sludge water sumps. The four stains represent a potential source of storm water contamination and are not described in the WDPES permit application.	MGE will remove staining from the building.	To be completed by May 2, 2005.

## **Appendix**

## **ISO 14001 CERTIFICATE OF REGISTRATION**



## NSF International Strategic Registrations, Ltd.



A Subsidiary of NSF International 789 North Dixboro Road, Ann Arbor, Michigan 48105 (888) NSF-9000

## Certificate of Registration

This certifies that the Environmental Management System of

## Madison Gas & Electric Company

P.O. Box 1231 Madison, WI 53701 USA

has been assessed by NSF-ISR and found to be in conformance to the following standard(s):

ISO 14001:1996

Scope of Registration:

Madison Gas and Electric Co.- Blount Station - Electric Power Generation.



Environmental Management System Registered to ISO 14001:1996 
 Certificate Number:
 2Z621-E1

 Certificate Issue Date:
 09/23/2004

 Company Initial Date:
 09/18/2004

 Registration Date:
 09/18/2004

 Expiration Date\*:
 09/17/2007

Keran P. Rawlon

Kevan P. Lawlor, President NSF-ISR



## VAN BREUSEGEN & ASSOCIATES, INC. STATEMENT OF QUALIFICATIONS

### **VBA** and **JWhitehouse Qualifications and Personnel**

Van Breusegen & Associates, Inc. (VBA) has been providing environmental auditing, consulting and management system services to industrial and commercial clients since October 1994 and has completed over 700 environmental compliance projects in 48 states in the U.S., three provinces in Canada, and two states in Mexico.

Specific to environmental compliance services, VBA personnel have completed numerous projects throughout the United States including regulatory applicability determinations, new source air permit applications; Title V air permit applications; air dispersion modeling; emission inventories; SPCC / SWPPP plans; NPDES permit applications; POTW permit applications; Phase I assessments; TRI reports; RCRA training; and development and implementation of comprehensive environmental management programs. Additionally VBA has participated in large-scale property transaction and/or business due diligence assessments throughout North America that included ASTM, CSA and multi-national EH&S compliance.

Specific to environmental auditing, VBA personnel have conducted comprehensive environmental compliance audits and protocol-specific compliance audits of more than 275 industrial and commercial facilities located in the United States, Canada and Mexico. Audit protocols covered include air, hazardous waste management, storm water management, solid waste management, Emergency Planning and Community Right to Know (EPCRA), pesticide management, PCBs, TSCA, USTs, ASTs, Spill Prevention Control & Countermeasure (SPCC), wastewater, remedial actions, drinking water, Title 33 (Coast Guard), California Business Plans, Proposition 65 (California), and DOT. In conjunction with these audits, VBA personnel have worked with several electronic audit reporting systems, including Lotus Notes EQM, Microsoft Access, and Microsoft Word.

Specific to health and safety auditing, JWhitehouse & Associates, Inc. (JWA) personnel have conducted health and safety audits of over 100 facilities throughout the United States, Canada and Europe. Audit protocols/standards are adapted to meet the client's needs and have included audits to determine compliance with OSHA regulations, company procedures and guidance documents and best management practices (including OSHA's Voluntary Protection Program requirements). Risk-based assessments and due diligence evaluations have also been completed as part of business and property transactions. JWA personnel have provided health and safety consulting services to GE Power Systems, GE Nuclear Energy, Kimberly-Clark Corporation, Von Roll IsolaUSA, Pfizer, Revlon, BestFoods Baking Company, Koch Industries, Finch, Pruyn & Company, Albany City School District and New York State United Teachers.

#### Client Summaries - Compliance Auditing

#### **Anheuser-Busch Companies**

VBA personnel actively participate as team members for the Anheuser-Busch Companies (A-BC) environmental audit program and have done so since 1992. Anheuser-Busch Companies and subsidiary companies are recognized industry leaders in the arena of environmental compliance and environmental compliance auditing. VBA personnel are specifically recognized by ABC for their ability to complete any of ABC's established environmental protocols, their ability to draft accurate audit exceptions, their client management skills and their attention to detail. VBA personnel have completed audits of breweries, can manufacturing plants, lid manufacturing plants, glass manufacturing plants, grain elevators, theme parks (Sea World Parks and Busch Gardens Parks), label printing operations, malting plants, box printing operations and rail car

refurbishing operations. In calendar year 2003, VBA personnel will participate in and/or lead environmental audits of 12 A-BC operations.

Additionally, prior to divestiture by Anheuser-Busch Companies, VBA personnel conducted environmental audits/reviews of 25+ Campbell Taggart, Inc. (CTI/Earthgrains) facilities. As part of the CTI audit program, VBA provided updated storm water pollution prevention plans and SPCC plans for most CTI operations.

#### **Koch Industries, Inc.**

Beginning in 1999, VBA was selected to conduct environmental compliance audits as a subcontractor for the prime auditing consulting firm for Koch Industries, Inc. (KII), the second largest privately held company in the United States (estimated annual revenues = \$40 Billion; Forbes Magazine – December 2002). Following technical presentations in the spring of 2000, VBA was awarded the entire fiscal year 2000 environmental compliance audit program for KII, completing 26 audits in the United States and Canada. VBA was subsequently exclusively selected by KII to perform environmental compliance audits for 31 facilities in calendar year 2001, 30 facilities in calendar year 2002 and has been selected as the exclusive provider of environmental compliance audits for calendar 2003. VBA personnel have completed audits of petroleum terminals, asphalt emulsion plants, sulfuric acid plants, natural gas fractionators, membrane manufacturing plants, flare manufacturing plants, heat exchanger manufacturing plants, petroleum gathering areas, cryogenic ammonia storage and transportation facilities, propane storage and transportation facilities, coal handling facilities, and petroleum gathering operations.

#### **Koch Materials Company**

During calendar year 2001 and 2002, VBA completed Federal, State and Local environmental applicability determinations for 81 Koch Materials Company facilities located in 30 states. These determinations included a one day site visit and Excel deliverable listing all regulations and identified as applicable, conditional or non-applicable. Conditional and applicable categories additionally contained site-specific regulatory guidance.

#### **Koch Chemical Technology Group**

Following divestiture by Koch Industries, Inc. in calendar year 2001, Koch Chemical Technology Group (KCTG) selected VBA to conduct environmental compliance audits of nine (9) industrial facilities located in the United States and Canada for calendar year 2002 and five (5) facilities in calendar year 2003.

#### **Koch Pipeline Company**

Following divestiture by Koch Industries, Inc. in calendar year 2001, Koch Pipeline Company selected VBA to conduct environmental compliance audits of twelve (12) industrial facilities located in the United States for calendar year 2002 and recently selected VBA as the exclusive provider of environmental audits in calendar year 2003.

#### 3M

Following qualification proposals and capability presentations from multiple national firms in 2001, 3M selected VBA to conduct program specific audits of twelve North American facilities in calendar year 2002 and recently selected VBA for 14 audits in calendar 2003.

#### Heinz

Following resource capability proposals and demonstration audits in 2002, VBA was selected to enter into a master services agreement for environmental applicability determinations and multi-media environmental compliance audits for the Heinz Corporation.

#### **General Electric – Structured Finance Division**

VBA, in conjunction with JWA, was selected in third quarter 2002 to conduct a comprehensive EH&S conformance audit and Phase I ESA in support of a large financial package provided by GE Structured Finance Division to a privately owned Theme Park. VBA and JWA were sole-sourced on this project based upon both auditing and theme park experience.

#### **Interstate Brands Corporation**

Following resource and capability demonstration audits by several environmental firms, VBA was exclusively selected to conduct environmental compliance reviews of IBC Central Division bread and cake manufacturing facilities. In addition to auditing, VBA personnel provide training on conducting audits to IBC personnel and assist IBC personnel with populating the Environmental Quality Manager (EQM) Lotus Notes database licensed from the American Bakers Association. To date, VBA has conducted audits of seven IBC facilities in the Central Division, four facilities in the Western Division, and three facilities in the Eastern Division.

#### **Kimberly-Clark Corporation**

As a part of a multinational team led by InteGreyted Environmental Consultants, LLC, VBA personnel have participated in comprehensive environmental compliance audits of 26 domestic and international facilities including pulp and paper manufacturing, tissue manufacturing, medical equipment manufacturing, forestry management, R&D and ink manufacturing. As an integral component of the InteGreyted Environmental Consultants teaming arrangement, VBA personnel are members of the Kimberly-Clark preferred acquisition and divestiture team.

#### **Union Tank Car Company**

In a partnership/teaming arrangement with Environmental Compliance and Engineering, Inc., VBA was selected to conduct multimedia environmental compliance audits of fourteen UTLX railcar manufacturing and/or refurbishing facilities in calendar year 1999. The ECE / VBA team was subsequently selected to conduct of all UTLX facilities in 2001, thereby becoming the first consultants to be consecutively selected for the UTLX biennial audit program.

#### **BAMA Foods**

VBA was engaged by BAMA Foods to develop and implement an auditing program for all BAMA manufacturing plants. VBA developed facility specific audit protocols, conducted baseline facility audits and developed facility specific compliance checklists and schedules. BAMA Foods used the VBA-developed program as a building block toward ISO 14000 Certification.

#### **Earthgrains**

VBA personnel have participated and/or lead environmental compliance audits of 35 Earthgrains (formerly Campbell Taggart) facilities (including bread, bun, dough and cake plants) located throughout the United States. These audits/reviews typically included fleet operations, covered from 8 to 13 protocol topics and involved population of a Lotus Notes audit database.

#### Cape Cod Potato Chip

VBA was engaged by Cape Cod Potato Chips (CCPC) to develop and implement an auditing program for their Hyannis, Massachusetts manufacturing plant. VBA developed facility specific audit protocols, conducted a baseline facility audit and developed a facility specific compliance checklist and schedule. CCPC uses the facility specific checklist for on-going self-assessments.

#### Purina Mills, Inc.

VBA has conducted multimedia independent environmental compliance audits of ten Purina operations located through out the United States. Facilities audited include graining, milling and chow manufacturing operations, swine management operations, and research and development operations (i.e., swine, bovine and equine). Additionally, VBA completed environmental applicability determinations for twelve Purina Mills facilities located regionally throughout the United States.

Additionally, VBA personnel have participated in multi-media environmental compliance audits for The Pillsbury Company, the United States Air Force Academy, Siemens, BNSF Railroad, Pentair Corporation, The Toro Company, Stella Foods, Honeywell, Gardner Denver, Raskas Dairy, GE Lamp Division and Dana Corporation.

References for VBA's project work can be provided as needed.

#### Personnel

VBA personnel are active audit team leaders, audit team members and actively conduct compliance projects for multiple private and public corporations whose annual revenues range from one billion to over 40-billion. The following paragraphs provide brief biographical sketches for VBA personnel who will potentially be engaged in administration and execution of ADM Environmental Compliance Audits and/or Applicability Determinations.

#### René van Breusegen, E.I.T., President

Mr. van Breusegen is a degreed chemical engineer with 18 years of environmental engineering and consulting experience. He has participated in and/or led over 150 environmental compliance audits of industrial and commercial facilities located in over 30 states in the U.S., Canada and Mexico. Additionally, Mr. van Breusegen has completed over 100 compliance projects including new source permitting, emission inventories, Title V permitting, SARA reporting, SPCC plan preparation, SWPP plan preparation large scale due diligence assessments including ASTM and environmental compliance, environmental fatal-flaws analysis, and stand-alone environmental applicability determinations for facilities located throughout North America.

Prior to founding VBA, Mr. van Breusegen worked for 10 years in the environmental engineering/consulting and waste management industries.

#### Emmett Keegan, Associate

Mr. Keegan holds a Master of Science degree in Environmental Engineering and a Bachelor of Science degree in Biology and has 11 years compliance enforcement and compliance consulting experience. Mr. Keegan has participated in or led over 80 multi-media environmental, health and safety compliance audits located in 20+ states and two provinces of Canada; and has completed over 20 stand-alone environmental applicability determinations for facilities located throughout the United States. Additionally, Mr. Keegan has completed new source air permits, Title V

permits, NSR applicability determinations, PSD applicability determinations, Phase I assessments, emission inventories and air source modeling.

Prior to joining VBA, Mr. Keegan worked with CH2M Hill's Chicago office for one and one-half years and for over seven years with EPA Region V in air and wastewater enforcement.

#### Colene Tschoepe, Associate

Ms. Tschoepe holds a masters degree in Environmental Science and has 10 years of environmental consulting/auditing experience. Ms. Tschoepe has conducted over 80 environmental compliance audits and over 30 stand-alone environmental applicability determinations of industrial facilities located throughout North America. Ms. Tschoepe has served as an auditor for the United States Postal Service, Burlington Northern Santa Fe Railroad, Anheuser-Busch Companies, Pentair Corporation, Pillsbury Company, Interstate Brands Company and Coultier Foods.

Prior to joining VBA, Ms. Tschoepe's experience includes five years of consulting experience and five years in private industry.

#### Sharon Roberts, Associate

Ms. Roberts is a degreed chemical engineer with 16 years of industrial and consulting experience. Ms. Roberts has participated in over 75 comprehensive environmental compliance audits and completed over 10 stand-alone environmental applicability determinations for industrial facilities throughout the United States and Europe. Additionally, Ms. Roberts has completed environmental compliance projects of more than 100 industrial facilities including new source air permits, Title V permits, source tests, emission factor development, industrial wastewater permits, direct discharge permits, slug control plans, Lotus Notes training, SPCC plans, SWPP plans and process wastewater treatability studies. While working with Anheuser-Busch Companies, Ms. Roberts was instrumental in development of the Environmental Quality Manual (EQM), a Lotus Notes based environmental data management program that is currently used by multiple industrial entities.

Prior to joining VBA, Ms. Roberts worked in the environmental affairs and engineering departments of Anheuser-Busch Companies and Campbell Taggart, Inc., and as an environmental/process engineer for A.D. Little - Boston, Massachusetts.

#### Pamela Hesterberg, P.E., Associate

Ms. Hesterberg is a licensed Professional Engineer, holds a masters degree in Civil Engineering and has eight years of environmental engineering and consulting experience. She has participated in over 80 environmental compliance audits and completed over 15 stand-alone environmental applicability determinations for industrial facilities located throughout North America. Additionally, Ms. Hesterberg has completed environmental compliance project for more than 50 industrial facilities including emission inventories, SARA reports, industrial discharge permits, industrial sampling, Phase I assessments, Phase II investigations, groundwater sampling, SPCC/SWPP plans and certifications.

Prior to joining VBA, Ms. Hesterberg worked in the regulatory compliance group of a medium-sized environmental consulting firm and completed a one-year on-site assignment in the environmental compliance department of a large pharmaceutical manufacturing operation.

#### Heather Stork, P.E., Associate

Ms. Stork is a licensed professional engineer with a Bachelor of Science degree in Geological Engineering. She has eight years of multimedia environmental engineering and consulting

experience. Ms. Stork has participated in and/or led more than 10 environmental compliance audits, including development of the Environmental Compliance Guidance Manual, a regulatory compliance manual for a national healthcare organization with eighty facilities located in twenty states.

Prior to joining VBA, Ms. Stork was Vice President of Compliance Services for a Midwest based environmental engineering and consulting for whom she worked for six years in management roles and as a Geological Engineer. Additionally, Ms. Stork worked as a Geological Engineer for a Southeastern based consulting firm specializing in Department of Defense contracts and Base Realignment and Closure (BRAC) for over one year.

#### Lynn van Breusegen, P.E., Vice President

Ms. van Breusegen is a licensed professional engineer with masters degrees in Information Systems Management and Business Administration. She has 15 years of engineering, project management, consulting and information systems support experience within industry. Ms. van Breusegen has completed over 20 protocol specific and/or comprehensive compliance audits of industrial and institutional facilities. Ms. van Breusegen is also responsible for the operational and administrative management of VBA, including schedule coordination for professional staff.

Prior to joining VBA, Ms. van Breusegen worked for Anheuser-Busch Companies as a consultant to the Management Systems Group where she managed a team of information systems support personnel, and also worked in various engineering departments of Union Electric Company (now known as AmerenUE).

#### Jane Whitehouse, CIH, CSP, President – JWA

Ms. Whitehouse has a Master of Science degree in Environmental Health Sciences and is a Certified Industrial Hygienist and Certified Safety Professional. She has over 20 years of experience as a health and safety professional having worked both in industry and as a consultant. She has participated in and/or led over 100 safety and industrial hygiene assessments at industrial, commercial and educational facilities located in North America, Europe and Australia.

Prior to forming JWA, Ms. Whitehouse worked for several major consulting firms as well six years in industry including Exxon Chemicals, Purex Industries and Lockheed Missiles and Space Company.

#### Auditing / Compliance Tools

All VBA personnel are equipped with portable computers, up-to-date regulations by the Bureau of Natural Affairs (includes all 50 United States and is updated monthly) and portable color printers, providing for a self-sufficient and independent audit team. Unlike many smaller engineering firms, VBA has in-house information systems support provided by Ms. Lynn van Breusegen, P.E., who holds a Master Degree in Management Information Systems and worked in information systems support at Anheuser-Busch Companies prior to joining VBA full-time.

Additionally, selected VBA personnel are members of the Environmental Auditors Roundtable an organization designed to provide certification, awareness, guidance, resources, training, protocols, etc., for environmental auditing professionals.

#### Allied Auditing Firms

VBA has established formal working relationships with environmental compliance firms throughout the United States and Canada to provide additional auditing personnel for time sensitive, large-scale projects and for health and safety auditing. These relationships have pre-established interoffice rates and agreements providing for seamless delivery of consulting services to clients. Firms with whom VBA has formal agreements include:

- Environmental Compliance & Engineering, Inc. Aurora, Ohio;
- Kallmeyer Environmental Consulting, Inc. Covington, Kentucky; and
- JWhitehouse & Associates, Inc. Troy, New York.

## **GLOSSARY OF ACRONYMS**

#### GLOSSARY OF ACRONYMS

ASTs	Aboveground	Storage	Tanks
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Btu - British Thermal Units

CEAG - Community Environmental Advisory Group

CEMS - Continuous Emissions Monitoring System

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

CFCs - Chlorofluorocarbons

CNG - Compressed natural gas

CO - Carbon monoxide

CO<sub>2</sub> - Carbon dioxide

DMR - Discharge Monitoring Report

ECA - Environmental Cooperative Agreement

EMS - Environmental Management System

EPCRA - Emergency Planning and Community Right-to-Know Act

ESP - Electrostatic Precipitator

FIFRA - Federal Insecticide, Fungicide and Rodenticide Act

FRP - Facility Response Plan

HAPs - Hazardous Air Pollutants

ISO - International Organization for Standardization

MGE - Madison Gas and Electric Company

MGF - Madison General Fuels

MMSD - Madison Metropolitan Sewerage District

MPAP - Malfunction Prevention and Abatement Plan

NESHAPs - National Emission Standards for Hazardous Air Pollutants

Ni-Cd - Nickel Cadmium

NO<sub>X</sub> - Nitrogen oxides

NPDES - National Pollution Discharge Elimination System

NSPS - New Source Performance Standards

O&M - Operations and Maintenance

OPA - Oil Pollution Act

PCB - Polychlorinated biphenyl

PDF - Paper-derived fuel

PM - Particulate matter

PSD - Prevention of Significant Deterioration

QA/QC Manual - Quality Assurance/Quality Control Manual

RATAs - Relative Accuracy Test Audits

RMP - Risk Management Plan

SDWA - Safe Drinking Water Act

SO<sub>2</sub> - Sulfur dioxide

SOQ - Statement of Qualifications

SPCC - Spill Prevention, Control, and Countermeasure Plan

SPDES - State Pollution Discharge Elimination System

SWPPP - Storm Water Pollution Prevention Plan

TSCA - Toxic Substances Control Act

UIC - Underground Injection Control

USEPA - U.S. Environmental Protection Agency

USTs - Underground Storage Tanks

VBA - Van Breusegen & Associates, Inc.

VOCs - Volatile organic compounds

WDNR - Wisconsin Department of Natural Resources

WPDES - Wisconsin Pollution Discharge Elimination System